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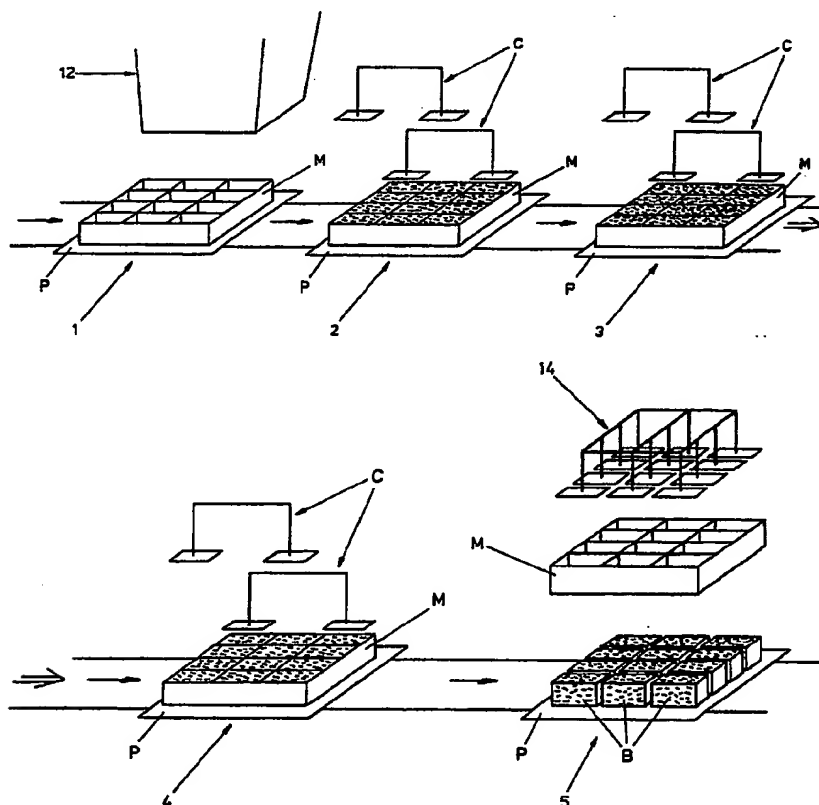
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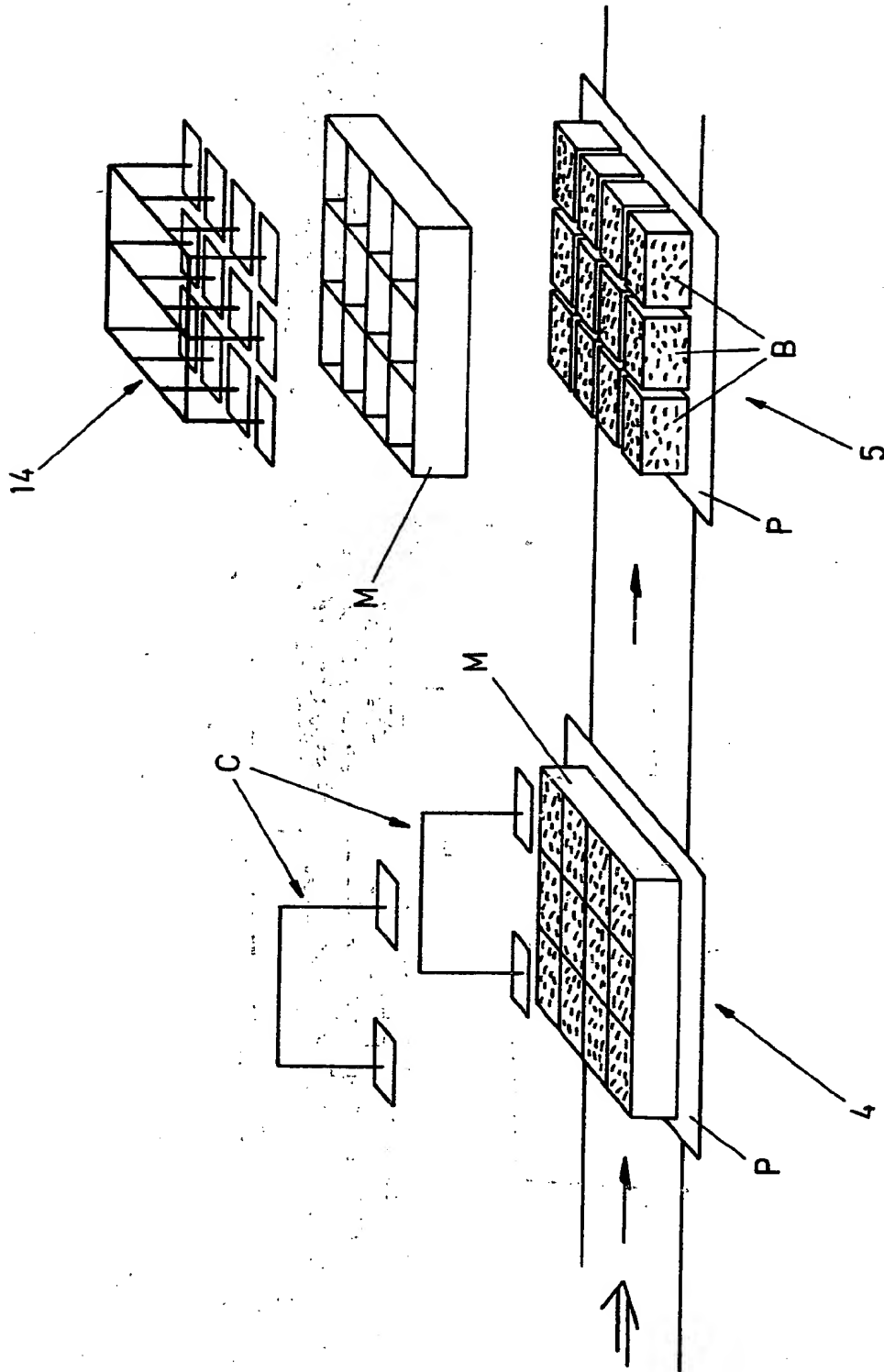
(56) Documents Cited
GB 1101337 A WO 79/00680 A1 US 4389036 A

(58) Field of Search
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(54) Process and apparatus for brick manufacture

(57) In the manufacture of building bricks, a succession of pallets P are advanced on a conveyor, each pallet supporting a mould M which is open at its top and bottom. Each mould is filled with concrete at first position 1, and the mould is lifted from the pallet at a later position 5, after which the pallet of bricks B is placed on a stack for the bricks to cure.





open at its top and bottom, means for filling the mould with concrete when the pallet is at one position, and means for lifting the mould from the pallet when the pallet is at another position.

5 Preferably the apparatus comprises means to vibrate the pallet and mould at one or more positions downstream of the mould-filling position. Preferably the apparatus comprises means to clamp the mould and pallet together at the or each vibration position.

10 Preferably the apparatus includes a stacker for placing each pallet onto a stack once its mould has been lifted clear.

Preferably the apparatus includes a hold-down means which engages each brick or other building element to hold it down on the pallet, as the mould is lifted clear.

15 It will be appreciated that whilst a pallet is at each of its operating positions, the next pallet in the succession will be at the previous operating position: preferably the pallets are stationary at each of their successive positions and the conveyor advances in steps (typically at 20 second 20 intervals).

An embodiment of this invention will now be described by way of example only and with reference to the accompanying drawing, the single figure of which is a schematic view of an apparatus for manufacturing bricks or other building elements 25 of concrete.

Referring to the drawings, in accordance with this invention, concrete bricks or other building elements are manufactured on an apparatus which comprises a conveyor diagrammatically indicated at 10. The conveyor carries a 30 succession of flat pallets P, each supporting a mould M: the mould M is open at its top and bottom and may comprise any number of mould cavities; in the example shown, each mould M has an array of twelve cavities, for making twelve bricks of conventional size. The top surface of each pallet may be 35 formed with protrusions to form the usual recess or "frog" in one face or bed of the brick.

The conveyor advances each pallet P, carrying a mould M, to a position 1 underneath a hopper 12. With the conveyor temporarily stationary, the mould M is filled with concrete

Claims

- 1) A method of manufacturing building bricks or other building elements, comprising advancing a succession of pallets, each pallet supporting a mould which is open at its top and bottom, each mould being filled with concrete at one position of its pallet, and then lifted from its pallet at another position of that pallet.
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- 2) A method as claimed in claim 1, in which after a mould is filled, its pallet is moved to a second position and subjected to vibration.
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- 3) A method as claimed in claim 2, in which the mould and its pallet are subjected to vibration at one or more further positions, before the pallet reaches its mould-removal position.
- 15 4) A method as claimed in claim 2 or 3, in which the mould and its pallet are clamped together during the or each vibration step.
- 5) A method as claimed in any preceding claim, in which each brick or other building element is held down on its pallet as the associates mould is lifted from that pallet.
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- 6) A method as claimed in any preceding claim, in which after the mould has been lifted from the pallet, the pallet is left in a stack of such pallets, for the bricks or other building elements on those pallets to cure.
- 25 7) A method of manufacturing building bricks or other building elements, the method being substantially as herein described with reference to the accompanying drawing.
- 8) An apparatus for manufacturing bricks or other building elements, comprising a conveyor for advancing a succession of pallets, each pallet supporting a mould which is open at its top and bottom, means for filling the mould with concrete when
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Patents Act 1977
Examiner's report to the Comptroller under Section 17
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Relevant Technical Fields

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Search Examiner
 J P LEIGHTON

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Databases (see below)

(i) UK Patent Office collections of GB, EP, WO and US patent specifications.

(ii) ONLINE DATABASES: WPI

Documents considered relevant following a search in respect of Claims :-
 1-13

Categories of documents

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| X: Document indicating lack of novelty or of inventive step. | P: Document published on or after the declared priority date but before the filing date of the present application. |
| Y: Document indicating lack of inventive step if combined with one or more other documents of the same category. | E: Patent document published on or after, but with priority date earlier than, the filing date of the present application. |
| A: Document indicating technological background and/or state of the art. | &: Member of the same patent family; corresponding document. |

Category	Identity of document and relevant passages	Relevant to claim(s)
X	GB 1101337 (E BENTON & CO) see page 3 lines 15-22	1 at least
A	WO 79/00680 A1 (PAULDING)	
X	US 4389036 (YOUSSEF ABOU-EZZIDDINE) see column 4 lines 1-14	1 at least

Databases: The UK Patent Office database comprises classified collections of GB, EP, WO and US patent specifications as outlined periodically in the Official Journal (Patents). The on-line databases considered for search are also listed periodically in the Official Journal (Patents).